April 23, 2003

Philip Dennis
Autocar, LLC
551 S. Washington Street
Hagerstown, IN 47346

Re: Registered Construction and Operation Status,
177-16848-00014

Dear Mr. Dennis:

The application from Autocar, LLC, received on February 27, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following emission units, to be located at 551 S. Washington Street, Hagerstown, Indiana, are classified as registered:

(a) One (1) high volume low pressure (HVLP) spray paint booth, with a maximum capacity of six (6) vehicles per eight (8) hour shifts, using a maximum of two (2) gallons of paint per chassis, equipped with dry filters with 96.5 % control efficiency, exhausting to stacks S001A and S001B.

(b) One (1) natural gas-fired drying enclosure, with a maximum heat input capacity of 2.5 mmBtu per hour, exhausting to stack S002.

(c) Sixteen (16) space heater units, seven (7) with maximum heat input capacitites of 0.125 mmBtu/hr, three (3) with maximum heat input capacities of 0.2 mmBtu/hr, two (2) with maximum heat input capacities of 0.05 mmBtu/hr, and one (1) with maximum heat input capacities of 0.10 mmBtu/hr, and three (3) with maximum heat input capacities of 0.35 mmBtu/hr. The total heat input capacities of all space heaters is 2.725 mmBtu/hr.

(d) One (1) vehicle engine testing booth, exhausting to stacks S004A and S004B.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

(2) Pursuant to 40 CFR 52 Subpart P, the particulate matter (PM) from the surface coating booth shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The surface coating operation shall be controlled by a dry particulate filter, subject to the following:

(i) The source shall operate the control device in accordance with manufacturer's specifications.

(ii) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(a) Repair control device so that overspray is visibly detectable or accumulates on the ground.

(b) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(iii) If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected or accumulates on the ground. These records must be maintained for five (5) years.

(3) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating):

The volatile organic compound (VOC) content of coating delivered to the applicator at the touch-up paint spray booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water for extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

This registration replaces Exemptions no. 177-4140-00014 and 177-2239-00014 issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

mm
cc: File - Wayne County
Wayne County Health Department
Air Compliance - D. J. Knotts
Permit Tracking
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name: Autocar, LLC
Address: 551 S. Washington Street
City: Hagerstown, Indiana
Authorized individual:
Phone #:
Registration #: 177-16848-00014

I hereby certify that **Autocar, LLC** is still in operation and is in compliance with the requirements of Registration **177-16848-00014**.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	**Autocar, LLC**
Source Location:	**551 S. Washington Street, Hagerstown, IN 47346**
County:	**Wayne**
SIC Code:	**3711**
Operation Permit No.:	**177-16848-00014**
Permit Reviewer:	**Madhurima D. Moulik**

The Office of Air Quality (OAQ) has reviewed an application from Autocar, LLC relating to the construction and operation of a heavy duty truck assembly and painting facility.

Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) high volume low pressure (HVLP) spray paint booth, with a maximum capacity of six (6) vehicles per eight (8) hour shifts, using a maximum of two (2) gallons of paint per chassis, equipped with dry filters with 96.5 % control efficiency, exhausting to stacks S001A and S001B.

(b) One (1) natural gas-fired drying enclosure, with a maximum heat input capacity of 2.5 mmBtu per hour, exhausting to stack S002.

(c) Sixteen (16) space heater units, seven (7) with maximum heat input capacitites of 0.125 mmBtu/hr, three (3) with maximum heat input capacities of 0.2 mmBtu/hr, two (2) with maximum heat input capacities of 0.05 mmBtu/hr, and one (1) with maximum heat input capacities of 0.10 mmBtu/hr, and three (3) with maximum heat input capacities of 0.35 mmBtu/hr. The total heat input capacities of all space heaters is 2.725 mmBtu/hr.

(d) One (1) vehicle engine testing booth, exhausting to stacks S004A and S004B.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Exemption No. 177-4140-00014, issued on December 12, 1994; and

(b) Exemption No. 177-2239-00014, issued on December 28, 1995.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S001A	Spray Paint Booth	30	4	42876	Ambient
S001B	Spray Paint Booth	30	4	42876	Ambient
S002	Drying Enclosure	30	1.5	45014	100
S004A	Engine Test Booth	10	4 x 4	-	Ambient
S004B	Engine Test Booth	10	4 x 4	-	Ambient

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on February 27, 2003.

Emission Calculations

See Appendix A of this document for detailed emissions calculations.

Emissions from vehicle testing booth were estimated to be negligible.

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	12.88
PM-10	12.88
SO_2	Negligible
VOC	24.17
CO	1.9
NO_x	2.3

HAPs	Potential To Emit (tons/year)
Xylene	1.46
Ethylene Glycol	2.99
MEK	0.37
Total HAPs	**4.81**

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM/PM-10 and VOCs are less

than 25 tons per year but greater than 10 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration will be issued.

County Attainment Status

The source is located in Wayne County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Wayne County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21. See the State Rule Applicability for the source section.

(b) Wayne County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21. See the State Rule Applicability for the source section.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

(a) This source assembles heavy-duty R Series trucks, each with a gross vehicle weight of approximately 16000 pounds or 7,272 kilograms. These vehicles do not meet the definition of light-duty trucks (gross weight equal to or less than 3,850 kilograms) as defined in 40 CFR 60.391 (New Source Performance Standard)(NSPS, Subpart MM) (Standards of Performance for Automobile and Light-Duty Truck Surface Coating Operations). Therefore, it is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.390, Subpart MM).

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Wayne County and the potential to emit all criteria pollutants is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this heavy-duty truck assembly and surface coating operation will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations) and 40 CFR 52 Subpart P

The surface coating operation at this source uses a maximum of 36 gallons of coating per day.

Pursuant to 40 CFR 52 Subpart P, the particulate matter (PM) from the surface coating booth shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The surface coating operation shall be controlled by a dry particulate filter, subject to the following:

(1) The source shall operate the control device in accordance with manufacturer's specifications.

(2) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(A) Repair control device so that overspray is visibly detectable or accumulates on the ground.

(B) Operate equipment so that no overspray is visibly detectable at the exhaust or

accumulates on the ground.

(3) If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected or accumulates on the ground. These records must be maintained for five (5) years.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

This source paints the chassis of heavy-duty trucks designed for exposure to outdoor weather at all times. Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement.

Conclusion

The construction and operation of this heavy duty truck assembly plant shall be subject to the conditions of the Registration No. 177-16848-00014.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
Company Name: Autocar, LLC.
Address City IN Zip: 551 S. Washington Street, Hagerstown, IN 47346
CP: 177-16848
Plt ID: 177-00014
Reviewer: Madhurima D. Moulik
Date: 7th March, 2003

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
5.2	45.8

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.2	0.0	2.3	0.1	1.9

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions
Company Name: Autocar, LLC.
Address City IN Zip: 551 S. Washington Street, Hagerstown, IN 47346
CP: 177-16848
Plt ID: 177-00014
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Date: 7th March, 2003

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	4.811E-05	2.749E-05	1.718E-03	4.123E-02	7.789E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.145E-05	2.520E-05	3.207E-05	8.705E-06	4.811E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Autocar, LLC.
Address City IN Zip: 551 S. Washington Street, Hagerstown, IN 47346
CP: 177-16848
Plt ID: 177-00014
Reviewer: Madhurima D. Moulik
Date: 7th March, 2003

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
White Paint Mix	10.8	28.40%	0.0%	28.4%	0.0%	71.10%	2.00000	0.750	3.06	3.06	4.59	110.21	20.11	12.68	4.31	75%
or																
Black Paint Mix	8.6	38.10%	0.0%	38.1%	0.0%	61.40%	2.00000	0.750	3.27	3.27	4.91	117.82	21.50	8.73	5.33	75%
Solvent Cleaner	8.5	4.62%	0.0%	4.6%	0.0%	0.00%	2.00000	0.750	0.39	0.39	0.59	14.05	2.56	0.00		100%

State Potential Emissions **Add worst case coating to all solvents** **PTE (Tons per Year)=** **5.49** **131.87** **24.07** **12.68**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: Autocar, LLC.
Address City IN Zip: 551 S. Washington Street, Hagerstown, IN 47346
CP: 177-16848
Plt ID: 177-00014
Reviewer: Madhurima D. Moulik
Date: 7th March, 2003

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Ethelyne Glycol	Weight % MEK	Xylene Emissions (ton/yr)	Ethylene Glycol Emissions (ton/yr)	MEK Emissions (ton/yr)	Comb HAPs
Black Paint Mix										
Black Paint	8.36	1.330000	0.75	4.00%	6.00%	1.00%	1.46	2.19	0.37	4.02
Activator	9.05	0.670000	0.75	0.00%	4.00%	0.00%	0.00	0.80	0.00	0.80
White Paint	11.65	1.330000	0.75	2.00%	3.00%	0.00%	1.02	1.53	0.00	2.54
Activator	9.05	0.670000	0.75	0.00%	4.00%	0.00%	0.00	0.80	0.00	0.80
			Worst Case		**PTE (tons/year) =**		**1.46**	**2.99**	**0.37**	**4.81**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

PTE = worst case paint + activator emissions